IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

DENNIS C. SMITH et al.

Group Art Unit: 2683

Examiner: not known

Serial No.: not known

Filed: application filed herewith

For: Method and System for Connecting Wireless Handsets with Wireline Switches

Attorney Docket No.: 1512C (USW0632PUS)

PRELIMINARY AMENDMENT

Commissioner for Patents
United States Patent and Trademark Office
Washington, D.C. 20231

Sir:

Please amend the above-identified application as follows:

In The Specification

Please replace the Specification paragraph as shown below. A marked up version of these changes is attached to this Amendment. First, a cross-reference to parent application has been added. Second, the specification should be amended to correct typographical errors. In particular, each reference to "wireline interface 28" should be replaced with -- wireline interface 26 --. The wireline interface is referenced with 26 in Figure 1 and is referred to as wireline interface 26 elsewhere in the Specification. Hence, this change does not constitute adding new matter.

Please replace the paragraph beginning on page 5 at line 5 with the paragraph shown below. :

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8

I hereby certify that this paper, including all enclosures referred to herein, is being deposited with the United States Postal Service as first-class mail, postage pre-paid, in an envelope addressed to: Commissioner for Patents, United States Patent and Trademark Office, Washington, D.C. 20231 on:

June 18, 2001 — Date of Deposit

Mark D. Chuey — Name of Person Signing

Signature

AM 18 and AC 20 communicate with a wireless handset 22 via Base Station (BS) 24. BS 24 typically consists of a transceiver (not shown) and an antenna (not shown) for enabling communications to and from the wireless handset 22. Furthermore, AC 20 is coupled to the wireline network via wireline interfaces 26. Wireline interface 26 is a digital loop carrier system interface which conforms to the TR-NWT-000303 technical requirements for digital loop carrier systems published by Bell Communications Research. Each of the ACs 18 may be coupled to one or more switches via wireline interface 26. In addition, each of the ACs 18 also has a plurality of ports (not shown) that provide access to the multiple switches 12.

In The Claims

Please delete claims 1-12 and replace with new claims 13-29 as provided below.

13. A system for connecting a subscriber wireless handset to one of a plurality of wireline switches in an integrated wireline/wireless telecommunications network, the system comprising:

a wireless service location register identifying the subscriber with one of the wireline switches and identifying the subscriber with a feature group representing features subscribed to by the subscriber;

at least one access controller in communication with the wireless handset and with at least one wireline switch, each access controller operative to switch a call between the handset and one wireline switch based on the handset subscriber feature group; and

an access manager in communication with the wireless service location register and each access controller, the access manager selecting an idle port on the access controller switching the call.

14. A system for connecting a subscriber wireless handset to one of a plurality of wireline switches in an integrated wireline/wireless telecommunications network as in claim 13 wherein the access manager maintains a busy/idle status of all ports within each feature group.

15. A system for connecting a subscriber wireless handset to one of a plurality of wireline switches in an integrated wireline/wireless telecommunications network as in claim 13 wherein the wireless service location register is further operative to receive the identification of the subscriber from one of the wireline switches in response to a call delivery attempt to the wireless handset and to determine a home wireline switch associated with the wireless handset from the plurality of wireline switches.

16. A system for connecting a subscriber wireless handset to one of a plurality of wireline switches in an integrated wireline/wireless telecommunications network as in claim 13 wherein the wireless service location register is further operative to receive the identification of the subscriber from one of the access

controllers in response to a call origination attempt by the wireless handset and to determine at least one wireline switch from a subset of the plurality of wireline switches, the subset corresponding to the wireline switches coupled to the one of the access controllers.

17. A system for connecting a subscriber wireless handset to one of a plurality of wireline switches in an integrated wireline/wireless telecommunications network as in claim 13 wherein the access manager is further operative to determine at least one preferred port as a subset of ports supporting common line-side features.

18. A system for connecting a subscriber wireless handset to one of a plurality of wireline switches in an integrated wireline/wireless telecommunications network as in claim 17 wherein each port has one of a busy status and an idle status and wherein the access controller, in connecting the wireless handset to one of the plurality of wireline switches, is further operative to determine the status of each of the plurality of preferred ports.

19. A method for connecting a subscriber wireless handset to one of a plurality of wireline switches comprising:

receiving a subscriber identification in response to a call attempt;

associating the subscriber with one of a plurality of feature groups, each feature group representing features subscribed to by the subscriber, the association based on the subscriber identification;

determining one of the plurality of switches based on the subscriber identification; and

connecting the call between the handset and one of the wireline switches based on the associated subscriber feature group.

20. A method for connecting a subscriber wireless handset to one of a plurality of wireline switches as in claim 19 wherein associating the subscriber with one of the feature groups comprises associating in a wireless service location register.

21. A method for connecting a subscriber wireless handset to one of a plurality of wireline switches as in claim 19 wherein receiving the subscriber identification comprises receiving the subscriber identification from an access controller in communication with the wireless handset in response to a call origination attempt by the wireless handset.

22. A method for connecting a subscriber wireless handset to one of a plurality of wireline switches as in claim 19 wherein receiving the subscriber identification comprises receiving the subscriber identification from one of the wireline switches in response to a call delivery attempt to the wireless handset.

23. A method for connecting a subscriber wireless handset to one of a plurality of wireline switches as in claim 19 further comprising selecting a switch idle port on an access controller switching the call, the access controller in communication with the wireless handset and the wireline switches.

24. A method for connecting a subscriber wireless handset to one of a plurality of wireline switches as in claim 19 wherein switch ports in an access controller interconnecting the wireless handset and at least one of the wireline switches are grouped based on feature groups supported by the switch ports.

25. A method for connecting a subscriber wireless handset to one of a plurality of wireline switches as in claim 24 wherein one switch port is selected based on the real time busy/idle status of the switch ports.

26. A method for connecting a subscriber wireless handset to one of a plurality of wireline switches in an integrated wireline/wireless telecommunications network, the method comprising:

identifying, in a wireless service location register, the subscriber with one of the wireline switches;

identifying, in the wireless service location register, the subscriber with a feature group representing features subscribed to by the subscriber; and

switching a call between the handset and the identified wireline switch in an access controller in communication with the wireless handset and the identified wireline switch, the switching based on the identified subscriber feature group.

27. A method for connecting a subscriber wireless handset to one of a plurality of wireline switches in an integrated wireline/wireless telecommunications network as in claim 26 further comprising selecting an idle port in the access controller for switching the call, the selecting done by an access manager in communication with the wireless service location register and the access controller.

28. A method for connecting a subscriber wireless handset to one of a plurality of wireline switches in an integrated wireline/wireless telecommunications network as in claim 26 wherein identifying the subscriber feature group is based on a subscriber identification received from the access controller in response to a call origination attempt by the wireless handset.

29. A method for connecting a subscriber wireless handset to one of a plurality of wireline switches in an integrated wireline/wireless telecommunications network as in claim 26 wherein identifying the subscriber feature group is based on a subscriber identification received from one of the wireline switches in response to a call delivery attempt to the wireless handset.

Remarks

Claims 1-12, as filed in this application, have been cancelled and replaced with new claims 13-29.

The above-captioned application, filed herewith, is a continuation of U.S. Patent Application Serial Number 09/218,247 filed December 22, 1998. In the parent application, the Examiner issued a final Office Action on March 16, 2001 rejecting claims 1-12 and allowing claim 13. Claim 13 of the parent application has been substantially reproduced as new claim 13 in this amendment.

Respectfully submitted,

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Date: June 18, 2001

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Attachment

VERSION WITH MARKINGS TO SHOW CHANGES MADE

AM 18 and AC 20 communicate with a wireless handset 22 via Base Station (BS) 24. BS 24 typically consists of a transceiver (not shown) and an antenna (not shown) for enabling communications to and from the wireless handset 22. Furthermore, AC 20 is coupled to the wireline network via wireline interfaces ~~28~~ 26. Wireline interface ~~28~~ 26 is a digital loop carrier system interface which conforms to the TR-NWT-000303 technical requirements for digital loop carrier systems published by Bell Communications Research. Each of the ACs 18 may be coupled to one or more switches via wireline interface ~~28~~ 26. In addition, each of the ACs 18 also has a plurality of ports (not shown) that provide access to the multiple switches 12.